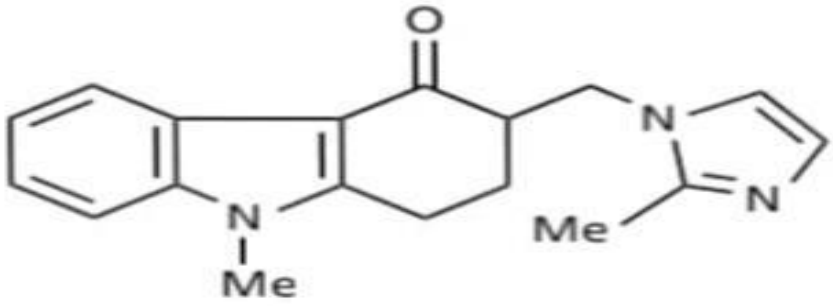
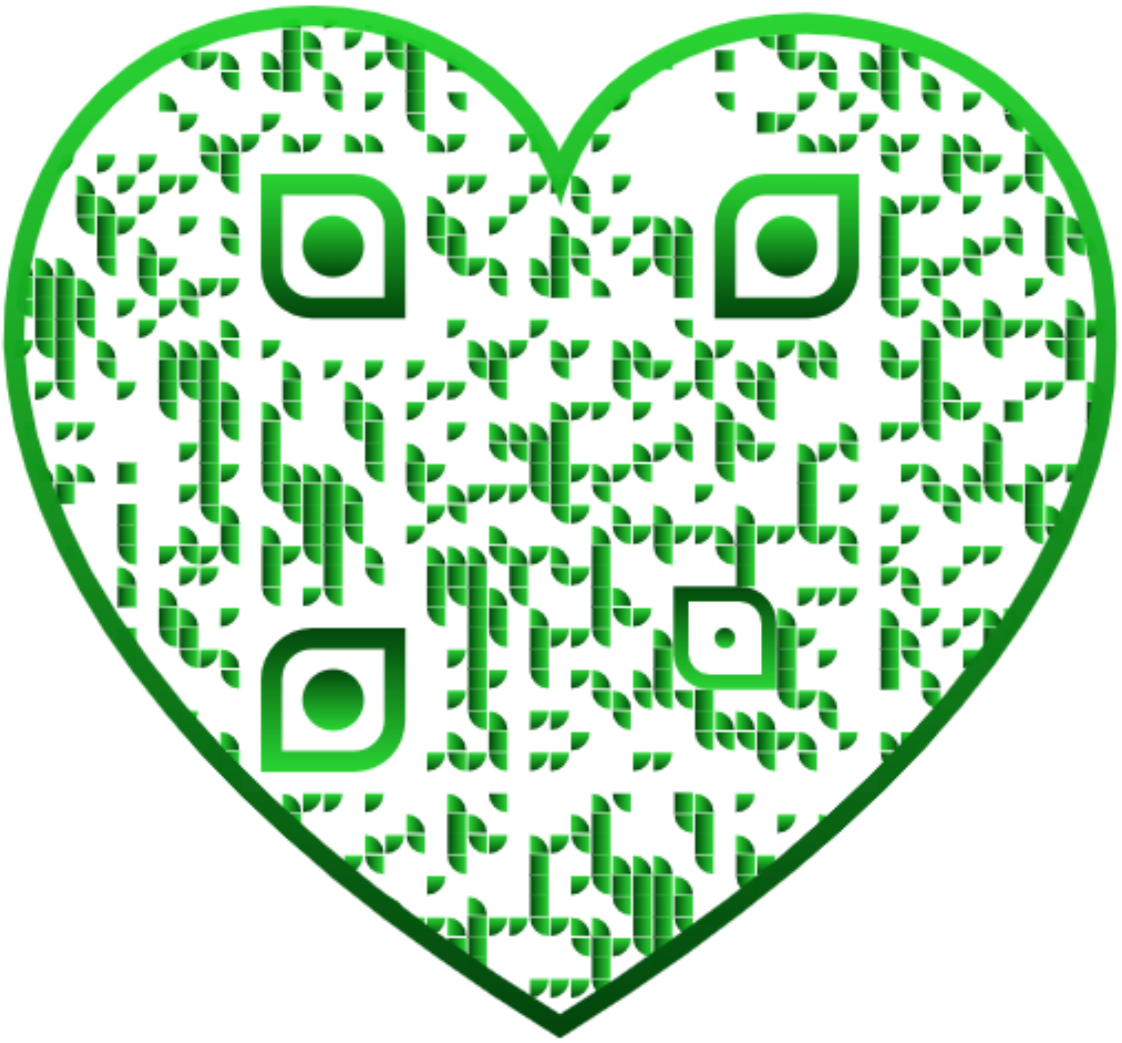
Name of drug	Ondansetron
Structure	 Ondansetron
The dosage form of the drug	injectable solutions, tablet,oral solution oral, soluble orally disintegrating tablets,,film
The main use of the drug	Chemotherapy-Induced Nausea & Vomiting,Postoperative Radiation-Induced Nausea & Vomiting,Nausea & Vomiting
The dose of drug	oral\ ,,Injectable solutions 2mg/ml/tablet 4_8And .24 mg solution4mg/5Ml oral soluble film4 and 8 mg orally disintegrating tablets 4and 8 mg
Is it hydrophilic or hydrophobic	The drug is hydrophobic
Is it acidic or basic	Ondansetron is a weak base
Mechanism of absorption	Unchanged(passive diffusion pathway across intestinal mucosa)
Mechanism of Action	Mechanism not fully characterized; selective 5-HT3 receptor antagonist; binds to 5-HT3 receptors both in periphery and in CNS, with primary effects in GI tract Has no effect on dopamine receptors and therefore does not cause extrapyramidal symptoms
Distribution of the drug	Protein bound: 70-76% Vd: Children, 1.7-3.7 L/kg; adults, 2.2-2.5 L/kg
Metabolism of the drug	Extensive hepatic metabolism, with hydroxylation followed by glucuronide (indole ring) or sulfate conjugation; metabolized by CYP2D6 and partly by CYP1A2 and CYP3A4 Metabolites: Glucuronide conjugate, sulfate conjugate (inactive)
Is it substrate, inducer or inhibitor)	Substrate



The enzyme of metabolism	**metabolized by CYP2D6 and partly by CYP1A2 and CYP3A4**
Prescription contain the drug	
Elimination	**Half-life: 2-7 hr (children <15 years); 3-7 hr (adults); patients with mild to moderate hepatic impairment, 12 hr; patients with severe hepatic impairment (Child-Pugh class C), 20 hr**
Excretion	**Primarily urine (30-70%); feces (25%)**
Total body clearance	**: 600-700 mL/min**
IV Incompatibilities	**Y-site: Acyclovir, allopurinol, aminophylline, amphotericin B, amphotericin B cholesteryl sulfate, ampicillin, ampicillin/sulbactam, amsacrine, cefepime, cefoperazone, 5-fluorouracil (5-FU; at 1 mg/mL ondansetron and 16 mg/mL 5-FU; may be compatible at 0.8 mg/mL 5-FU and up to 160 mcg/mL ondansetron), furosemide, ganciclovir, lorazepam, meropenem (at 50 mg/mL meropenem and 1 mg/mL ondansetron; may be compatible at 1 mg/mL each), methylprednisolone, piperacillin, sargramostim, sodium bicarbonate**
IV Compatibilities	**Y-site (partial list): Alatrofloxacin, aldesleukin, azithromycin, bleomycin, carboplatin, cisplatin, cladribine, clindamycin, cyclophosphamide, cytarabine, dactinomycin, dopamine, heparin, hydromorphone, magnesium sulfate, meperidine, morphine sulfate, paclitaxel, potassium chloride, topotecan, vancomycin, vinblastine, vincristine, zidovudine** **Syringe: Alfentanil, atropine, dexamethasone (incompatible at 0.67 mg/mL dexamethasone and 1.07 mg/mL ondansetron), fentanyl, glycopyrrolate, meperidine, metoclopramide, midazolam, morphine sulfate, naloxone, neostigmine, propofol**